

10/573821

SEQUENCE LIST  
MARS Rec'd PCT/PTO 28 MAR 2006

<110> Daiichi Suntory Pharma Co., LTD.

<120> Method for cleavage of polypeptide using OmpT protease variant

<130> P860

<160> 8

<210> 1

<211> 184

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PRR fusion protein

<400> 1

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp  
1 5 10 15

Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro  
20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro  
35 40 45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe  
50 55 60

Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala  
65 70 75 80

Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr  
85 90 95

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro  
100 105 110

Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln  
115 120 125

Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His Gly  
130 135 140

Ser Gly Ser Pro Tyr Arg His Pro Arg His Ala Glu Gly Thr Phe Thr  
145 150 155 160

Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile  
165 170 175

Ala Trp Leu Val Lys Gly Arg Gly

180

<210> 2

<211> 184

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PA fusion protein

<400> 2

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp  
1 5 10 15

Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro  
20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro  
35 40 45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe  
50 55 60

Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala  
65 70 75 80

Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr  
85 90 95

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro  
100 105 110

Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln  
115 120 125

Met His Ala Ala Ala Ala Ala Ala Ala Arg Arg Ala Ala Ala  
130 135 140

Ala Gly Ser Pro Tyr Arg His Pro Arg His Ala Glu Gly Thr Phe Thr  
145 150 155 160

Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile  
165 170 175

Ala Trp Leu Val Lys Gly Arg Gly

180

<210> 3

<211> 184

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PA3' type fusion protein

<400> 3

Met	Thr	Met	Ile	Thr	Asp	Ser	Leu	Ala	Val	Val	Leu	Gln	Arg	Lys	Asp
1				5					10					15	
Trp	Glu	Asn	Pro	Gly	Val	Thr	Gln	Leu	Asn	Arg	Leu	Ala	Ala	His	Pro
	20					25								30	
Pro	Phe	Ala	Ser	Trp	Arg	Asn	Ser	Asp	Asp	Ala	Arg	Thr	Asp	Arg	Pro
	35					40						45			
Ser	Gln	Gln	Leu	Arg	Ser	Leu	Asn	Gly	Glu	Trp	Arg	Phe	Ala	Trp	Phe
	50					55					60				
Pro	Ala	Pro	Glu	Ala	Val	Pro	Glu	Ser	Leu	Leu	Asp	Leu	Pro	Glu	Ala
	65				70				75					80	
Asp	Thr	Val	Val	Val	Pro	Asp	Ser	Ser	Asn	Trp	Gln	Met	His	Gly	Tyr
	85					90						95			
Asp	Ala	Pro	Ile	Tyr	Thr	Asn	Val	Thr	Tyr	Pro	Ile	Thr	Val	Asn	Pro
		100				105						110			
Pro	Phe	Val	Pro	Thr	Glu	Pro	His	His	His	Pro	Gly	Gly	Arg	Gln	
		115				120					125				
Met	His	Ala	Arg	Arg	Ala	Arg	Ala								
		130				135				140					
Ala	Gly	Ser	Pro	Tyr	Arg	His	Pro	Arg	His	Ala	Glu	Gly	Thr	Phe	Thr
	145				150				155					160	
Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly	Gln	Ala	Ala	Lys	Glu	Phe	Ile
			165				170					175			
Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly								
		180													

<210> 4

<211> 184

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PA23' type fusion protein

<400> 4

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp  
1 5 10 15

Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro  
20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro  
35 40 45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe  
50 55 60

Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala  
65 70 75 80

Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr  
85 90 95

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro  
100 105 110

Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln  
115 120 125

Met His Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Ala  
130 135 140

Ala Gly Ser Pro Tyr Arg His Pro Arg His Ala Glu Gly Thr Phe Thr  
145 150 155 160

Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile  
165 170 175

Ala Trp Leu Val Lys Gly Arg Gly  
180

<210> 5

<211> 162

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PRMT type fusion protein

<400> 5

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Trp	Glu	Asn	Pro	Gly	Val	Thr	Gln	Leu	Asn	Arg	Leu	Ala	Ala	His	Pro
															20 25 30
Pro	Phe	Ala	Ser	Trp	Arg	Asn	Ser	Asp	Asp	Ala	Arg	Thr	Asp	Arg	Pro
															35 40 45
Ser	Gln	Gln	Leu	Arg	Ser	Leu	Asn	Gly	Glu	Trp	Arg	Phe	Ala	Trp	Phe
															50 55 60
Pro	Ala	Pro	Glu	Ala	Val	Pro	Glu	Ser	Leu	Leu	Asp	Leu	Pro	Glu	Ala
															65 70 75 80
Asp	Thr	Val	Val	Val	Pro	Asp	Ser	Ser	Asn	Trp	Gln	Met	His	Gly	Tyr
															85 90 95
Asp	Ala	Pro	Ile	Tyr	Thr	Asn	Val	Thr	Tyr	Pro	Ile	Thr	Val	Asn	Pro
															100 105 110
Pro	Phe	Val	Pro	Thr	Glu	Pro	His	His	His	His	Pro	Gly	Gly	Arg	Gln
															115 120 125
Met	His	Gly	Tyr	Asp	Ala	Glu	Lue	Arg	Leu	Tyr	Arg	Phe	Val	Pro	Ile
															130 135 140
Phe	Thr	Tyr	Gly	Glu	Leu	Gln	Arg	Met	Gln	Glu	Lys	Glu	Arg	Asn	Lys
															145 150 155 160
Gly	Gln														

<210> 6

<211> 165

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PMT type fusion protein

<400> 6

Met	Thr	Met	Ile	Thr	Asp	Ser	Leu	Ala	Val	Val	Leu	Gln	Arg	Lys	Asp
1															15
Trp	Glu	Asn	Pro	Gly	Val	Thr	Gln	Leu	Asn	Arg	Leu	Ala	Ala	His	Pro
															20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro  
35 40 45  
Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe  
50 55 60  
Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala  
65 70 75 80  
Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr  
85 90 95  
Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro  
100 105 110  
Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln  
115 120 125  
Met His Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Phe  
130 135 140  
Val Pro Ile Phe Thr Tyr Gly Glu Leu Gln Arg Met Gln Glu Lys Glu  
145 150 155 160  
Arg Asn Lys Gly Gln  
165

<210> 7

<211> 167

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PAC type fusion protein

<400> 7

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp  
1 5 10 15

Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro  
20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro  
35 40 45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe  
50 55 60

Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala

65	70	75	80
Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr			
85	90	95	
Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro			
100	105	110	
Pro Phe Val Pro Thr Glu Pro His His His Pro Gly Gly Arg Gln			
115	120	125	
Met His Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Ser			
130	135	140	
Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val Gly Lys Lys Arg			
145	150	155	160
Arg Pro Val Lys Val Tyr Pro			
165			

<210> 8

<211> 176

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222>

<223> Basic amino acid sequence of PCT type fusion protein

<400> 8

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp			
1	5	10	15

Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro			
20	25	30	

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro			
35	40	45	

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe			
50	55	60	

Pro Ala Pro Glu Ala Val Pro Glu Ser Leu Leu Asp Leu Pro Glu Ala			
65	70	75	80

Asp Thr Val Val Val Pro Asp Ser Ser Asn Trp Gln Met His Gly Tyr			
85	90	95	

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro			
100	105	110	

Pro Phe Val Pro Thr Glu Pro His His His His Pro Gly Gly Arg Gln  
115 120 125  
Met His Ala Ala Ala Ala Ala Ala Ala Arg Arg Arg Ala Arg Cys  
130 135 140  
Gly Asn Leu Ser Thr Cys Met Leu Gly Thr Tyr Thr Gln Asp Phe Asn  
145 150 155 160  
Lys Phe His Thr Phe Pro Gln Thr Ala Ile Gly Val Gly Ala Pro Gly  
165 170